

**Pete Ricketts**  
Governor

## STATE OF NEBRASKA

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
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Director

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### CLEAN WATER STATE REVOLVING LOAN FUND PROGRAM

#### CATEGORICAL EXCLUSION

TO: All Interested Citizens, Government Agencies and Public Groups

In accordance with the Nebraska Clean Water State Revolving Fund environmental review process, which is based on the National Environmental Policy Act, an environmental review has been performed on the proposed agency action below:

This information reviews the environmental impact likely from a project. This project is planned to be federally funded wholly or in part through your tax dollars; therefore, you are entitled to take part in its review. If you have concerns about the environmental impact of this project, please provide them at this time. The Nebraska Department of Environmental Quality (NDEQ) encourages public input in this decision-making process.

PROJECT NAME: Creighton Sanitary Sewer Slip Lining  
APPLICANT: Creighton, Nebraska  
COUNTY: Knox  
POPULATION: 1,154 (2010 census)  
CWSRF PROJECT NUMBER: C317158  
TOTAL PROJECT AMOUNT: \$1,058,000  
ESTIMATED CWSRF LOAN AMOUNT: \$958,000  
ESTIMATED CWSRF PRINCIPAL FORGIVENESS: \$100,000

The City of Creighton, Nebraska, is planning to slip line and/or replace approximately 29 blocks of selected portions of their existing sanitary sewer collection system. The City has applied for financial assistance through the Clean Water State Revolving Fund (CWSRF) loan program to construct the project. The City's original collection system was installed in the early 1930's and was composed of vitrified clay pipe (VCP). There are numerous locations in selected portions of the sewer collection system where recent TV inspections have found root intrusions, cracked or broken pipes. These deficiencies are the likely source of unwanted groundwater infiltration into the municipal wastewater system. Creighton's sanitary sewer system is composed of the following sizes and approximate lengths:

City of Creighton Existing Sanitary Sewer Sizes and Length	
Sanitary Sewer Diameter	Approximate Length
15 inch diameter	2,210 linear feet
12 inch diameter	2,520 linear feet
10 inch diameter	4,924 linear feet
8 inch diameter	45,529 linear feet
6 inch diameter	1,565 linear feet
Approximate Total	56,748 linear feet

Approximately 400 feet of 8 inch PVC pipe was installed in Oak Street in 2006. The City currently uses PVC pipe for the installation of new sewer mains. There are a total of 141 manholes, 6 cleanouts, and no lift stations. All of the collection system flows by gravity to their Mechanical Oxidation Ditch Wastewater Treatment Facility before discharging to the Bazile Creek.

The project will conduct some conventional sewer replacement and mostly install a cured in place pipe (CIPP) liner in the damaged 8", 10", 12" and 15" sewers in selected blocks of the City. The CIPP liner will function as a structural replacement for the existing pipe. The construction will slip line the pipe and not require excavation to replace the existing pipe. CIPP work will be accomplished from existing manholes and existing service line connections will be cut into the new liner once the liner is in place. Only temporary interruption of service will occur for sewer users affected as the liner pipe is installed. Conventional sewer replacement will involve trenching and total replacement of the existing VCP with new PVC sewer.

The project will have a positive impact on the environment. The project will result in continued wastewater treatment of Creighton's sewage flows with a lower risk of blockage or high infiltration and inflow, which could result in backups of untreated sewage into City homes.

The project is eligible for financing through the Clean Water State Revolving Loan Fund (CWSRF) and is currently listed on the CWSRF SFY2016 Intended Use Plan and ranked with 72 points on the CWSRF priority list. Creighton's 2012 median household income is \$40,508, with an AWIN score of 19 (high sustainability risk) which qualifies Creighton for 50.0 percent CWSRF principal forgiveness (dependent on availability of funds). Loan forgiveness would be matched with a 20-year CWSRF loan at a current program Green interest rate of 1.25 percent. In addition to principal and interest payments, an administrative fee of 1 percent of the loan balance would be assessed each year

Sewer use fees would be pledged to repay the loan. Current residential sewer user rates are a metered rate of \$31.00 bi-monthly base plus \$2.80 per 100 CF or 750 gallons winter water use per bimonthly period. The City of Creighton has approximately 700 residential and commercial sewer connections. Sewer rates would need to be raised by \$8.35 per month to cover the proposed CWSRF debt service and 10 percent coverage requirement. This would raise the average sewer rate when equating the bi-monthly sewer rate to a monthly residential sewer rate of \$23.36 per month would then raise the average sewer rate up to \$31.71 per month (sewer rates are billed bi-monthly).

The proposed project was reviewed for eligibility for a categorical exclusion from National Environmental Policy Act review specified in 40 CFR (Code of Federal Regulations) Part 6.204. The project meets all criteria described in the above reference and the Department has determined that this project is eligible for a categorical exclusion. Consequently, a preliminary decision has been made that a Finding of No Significant Impact will not be prepared. The project as proposed is solely directed toward rehabilitation of the existing sanitary sewer. Justification for categorical exclusion includes:

- The proposed action is not known or expected to have potentially significant environmental impacts on the quality of the human environment either individually or cumulatively over time;
- The proposed action is not known or expected to significantly affect federally listed threatened or endangered species or their critical habitat;
- The proposed action is not known or expected to significantly affect national natural landmarks or any property with nationally significant historic, architectural, prehistoric archeological or cultural value, including but not limited to, properties listed on or eligible for the National Register of Historic Places;
- The proposed action is not known or expected to significantly affect environmentally important natural resource areas as wetlands, prime farmland, wild and scenic rivers, significant fish or wildlife habitat, and floodplains (portions of the sanitary sewer system lies in the 100 year floodplain, the City will issue a permit to construct in the floodplain);
- The proposed action is not known or expected to have a significant effect on the pattern and type of land use (industrial, commercial, agricultural, recreational, residential) or growth and distribution of population including altering the character of existing residential areas, or may not

be consistent with state or local government, or federally-recognized Indian tribe approved land use plans or federal land management plans;

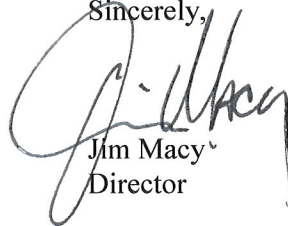
- The proposed action is not known or expected to cause significant public controversy.

The Nebraska Department of Environmental Quality shall revoke the categorical exclusion and shall require a full environmental review if, subsequent to the granting of exclusion, the state determines that the proposed project no longer meets the requirements for a categorical exclusion due to changes in the proposed project, or new evidence reveals that serious local or environmental issues exist, or federal, state, local or tribal laws are being violated.

This action is taken on the basis of careful review of the application and other supporting data, which are on file in the office of the NDEQ. These are available for public review upon request. Persons having a comment on this categorical exclusion determination are encouraged to submit such comments directly to Tom Fuenning, Review Engineer, of the Technical Assistance Section of NDEQ, who can be reached at (402) 471-4989 or email: [tom.fuenning@nebraska.gov](mailto:tom.fuenning@nebraska.gov).

Signed this 21<sup>st</sup> day of JANUARY, 2016.

Sincerely,



Jim Macy  
Director

JM/tsf

Attachments: Distribution List  
Maps  
Green Business Case Determination

CATEGORICAL EXCLUSION DISTRIBUTION LIST

CREIGHTON, NEBRASKA

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DIRECTOR, NEBRASKA STATE  
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Lincoln, NE 68508-2554

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Policy Advisor  
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P.O. Box 94601  
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Environmental Coordinator  
Midwest Regional Office  
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100 Centennial Mall North  
Lincoln, NE 68508

ENVIRONMENTAL PROTECTION AGENCY  
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Mail Code: WWPDWIMB  
Lenexa, KS 66219

STATE CONSERVATIONIST  
Natural Resources Conservation Service  
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100 Centennial Mall North  
Lincoln, NE 68508

DEPARTMENT OF THE ARMY  
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State Program Manager  
US Army corps of Engineers  
Nebraska State Office, Suite 1  
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Omaha, NE 68138-3621

APPLICANT:  
Lisa Parrell, City Administrator  
City of Creighton  
809 Main Street  
P.O. Box 188  
Creighton, NE 68729-0188

CONSULTING ENGINEER:  
Chris Miller, P.E.  
Miller & Associates  
1111 Central Avenue  
Kearney, NE 68847

LOCAL NEWSPAPER  
Creighton News  
816 Main Street  
Creighton, NE 68729  
(Public Information Only not for Public Notice)

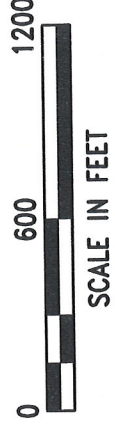
LOWER NIOBRARA NRD  
410 Walnut Street  
P.O. Box 350  
Butte, NE 68722-0350

# 1st Priority Improvement Cost (UPDATED)

Project	Description	1st Priority	Total Project Cost
1-39	Conventional Replacement		\$25,700
3-4	Conventional Replacement		\$56,545
4-5	Conventional Replacement		\$52,222
8-9	Cure in Place Liner		\$72,563
9-10	Conventional Replacement		\$64,528
10-11	Cure in Place Liner		\$36,036
14-15	Cure in Place Liner		\$45,963
20-			
WWTF	Conventional Replacement		\$27,538
30-31	Conventional Replacement		\$46,093
65-66	Cure in Place Liner		\$22,715
66-67	Cure in Place Liner		\$20,750
71-72	Cure in Place Liner		\$34,200
76-77	Cure in Place Liner		\$38,500
	Spot Repairs		\$20,000
	1st Priority Project Total		\$563,350

# 2nd Priority Improvement Cost (UPDATED)

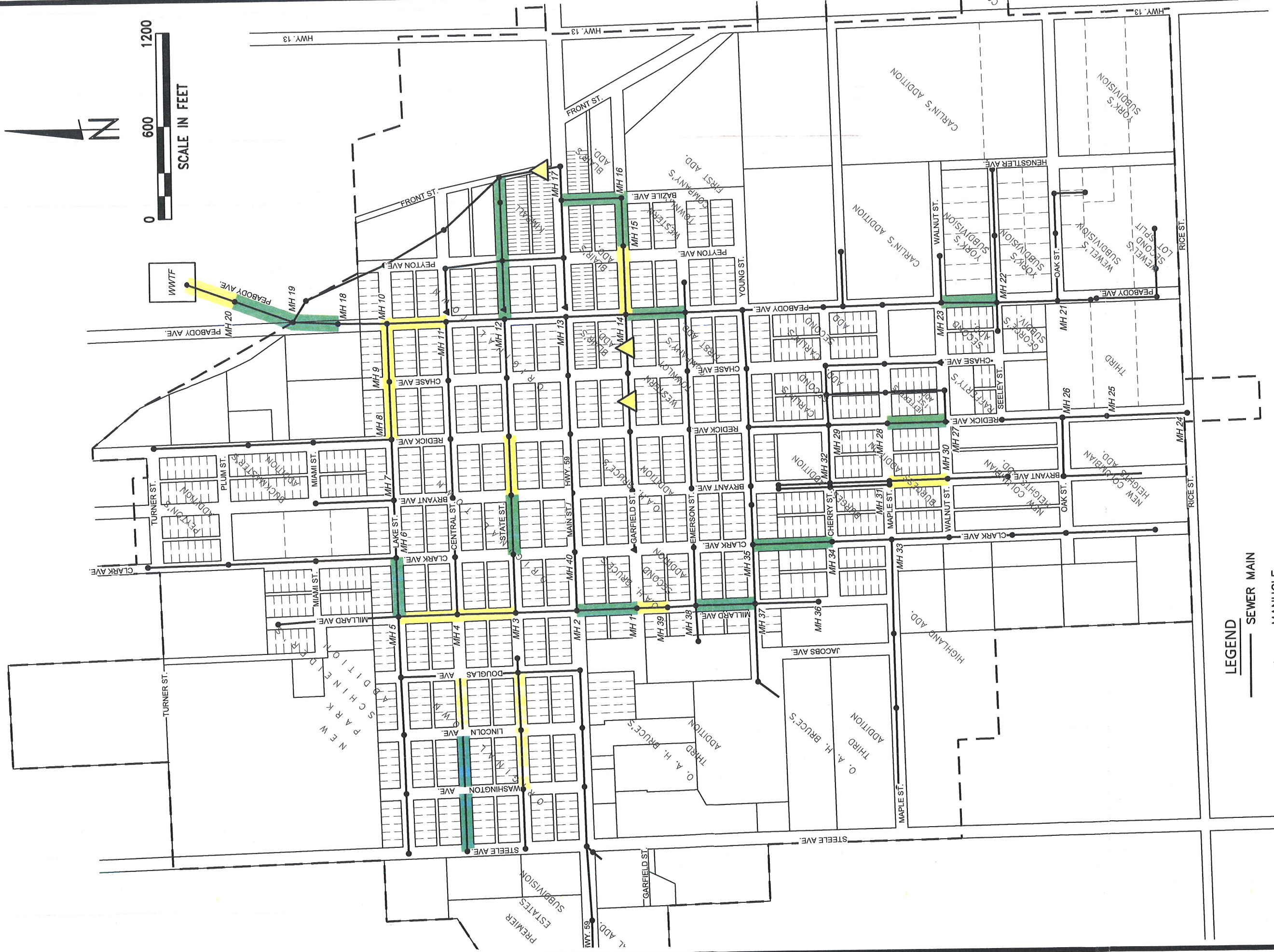
Project	Description	Total Project Cost
2nd Priority		
1-2	Cure in Place Liner	\$41,050
5-6	Cure in Place Liner	\$31,825
15-16	Conventional Replacement	\$42,516
16-17	Cure in Place Liner	\$19,000
18-19	Conventional Replacement	\$39,743
19-20	Cure in Place Liner	\$61,813
22-23	Cure in Place Liner	\$19,738
27-28	Cure in Place Liner	\$20,175
34-35	Cure in Place Liner	\$44,788
37-38	Cure in Place Liner	\$29,288
14-49	Cure in Place Liner	\$25,875
69-70	Cure in Place Liner	\$18,250
70-71	Cure in Place Liner	\$18,750
75-76	Cure in Place Liner	\$32,750
80-81	Cure in Place Liner	\$19,650
81-82	Cure in Place Liner	\$9,500
84-80	Cure in Place Liner	\$19,500
2nd Priority Project Total		\$494,210



**MILLER & ASSOCIATES  
CONSULTING ENGINEERS, P.C.  
1111 CENTRAL AVENUE  
KEARNEY, NE 68847**

MECHANICAL ROOT CUT/REMOVAL

JANUARY 2015 CCTV



- LEGEND
- SEWER MAIN
  - MANHOLE
  - CLEANOUT
  - FIRST PRIORITY
  - SECOND PRIORITY

Figure 23 (revised)  
Corrective Action  
Priorities

**BUSINESS CASE FOR ENERGY EFFICIENCY QUALIFICATION FOR A GREEN  
PROJECT RESERVE DESIGNATION FOR CWSRF PROJECT NO. C317158  
INFILTRATION AND INFLOW CORRECTION PROJECT FOR CREIGHTON, NEBRASKA**

Synopsis: The City of Creighton, Nebraska, is planning to slip line approximately 29 blocks and/or replace portions of their existing sanitary sewer. In accordance with EPA's 2010 Clean Water and Drinking Water State Revolving Fund 20% Green Project Reserve: Guidance for Determining Project Eligibility under Energy Efficiency Category qualifies Infiltration and Inflow (I &I) correction projects that save energy from reduced treatment costs or I&I correction projects where excessive groundwater infiltration is requiring otherwise unnecessary treatment processes are eligible for Green Project Reserve (GPR) designation using a "Business Case" justification.

The City of Creighton performed a televised inspection of selected sanitary sewer lengths 32 blocks of sanitary sewer. The televised inspection showed that there were multiple areas along the route with root intrusion, cracked or broken pipes. These deficiencies are the likely source of unwanted groundwater infiltration into the municipal wastewater system.

The project will install a liner in the damaged sanitary sewer, which will function as a structural replacement for the existing pipe or replace the sewer by conventional means. The construction will mostly be done by slip lining the pipe and not require excavation to replace the existing pipe. Work will be accomplished from existing manholes and existing service line connections will be cut into the new liner once the liner is in place. Only temporary interruption of service will occur for sewer users affected as the liner pipe is installed. The project cost estimate is as follows:

<b>Description:</b>	<b>Estimated Costs:</b>
Engineering and Inspection fees	\$121,900
Construction	\$845,500
Contingency	\$90,600
<b>TOTAL</b>	<b>\$1,058,000</b>

The project will result in continued wastewater treatment of Creighton's sewage flows with a lower risk of blockage or high infiltration and inflow, which could result in backups of untreated sewage into City homes. The goal of the proposed I&I correction would be to remove the I&I from Creighton's sanitary sewer and move their overall I&I toward the 120 gpcd I&I threshold (EPA's nonexcessive I&I target) for their dry weather influent flows. The City of Creighton maximum flow day from 2010 and 2011 was 560,000 gpd or 485 gpcd (EPA's target for wet weather flow would be 275 gpcd). Energy savings should be achieved from reduced flows to their oxidation ditch mechanical wastewater treatment facility. The proposed I&I correction project for Creighton should save energy from their energy intensive mechanical plant which has a \$14,000 annual electrical budget and thereby qualify for the Green Project Reserve Funding.